

Date: Sun, 28 Nov 93 01:10:50 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #1395  
To: Info-Hams

Info-Hams Digest                      Sun, 28 Nov 93                      Volume 93 : Issue 1395

Today's Topics:

                                    Calculating SWR  
    Daily Summary of Solar Geophysical Activity for 20 November  
    Daily Summary of Solar Geophysical Activity for 26 November  
            Email callbook server (2 msgs)  
            How useful are DSP units in noisy locations?  
            Mag Mount Paint Damage  
            Modem Software to Alert Many Pagers?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

-----  
Date: Sat, 27 Nov 1993 18:48:05 GMT  
From: yuma!galen@purdue.edu  
Subject: Calculating SWR  
To: info-hams@ucsd.edu

In article <1993Nov26.200816.19512@combdyn.com> lawrence@combdyn.com (Lawrence  
\*The Dreamer\* Chen) writes:  
>How do you calculate SWR? I have a power meter...and I can measure the forward  
>and reflected power. How to I take the two values to determine the SWR?

$$VSWR = \frac{1 + \sqrt{W_r/W_f}}{1 - \sqrt{W_r/W_f}}$$

Where SQRT denotes the square root of (this),  $W_r$  is reflected power and  
 $W_f$  is forward power.

>Right now I have forward power of 5 Watts and reflected power of 0.1 Watts,  
>what SWR would that correspond to?

I get 1.329:1 .

Galen, KF0YJ

-----  
Date: Sat, 20 Nov 1993 21:55:55 MST  
From: dog.ee.lbl.gov!agate!usenet.ins.cwru.edu!magnus.acs.ohio-state.edu!  
math.ohio-state.edu!cyber2.cyberstore.ca!nntp.cs.ubc.ca!alberta!adec23!ve6mgs!  
usenet@network.ucsd.edu  
Subject: Daily Summary of Solar Geophysical Activity for 20 November  
To: info-hams@ucsd.edu

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DAILY SUMMARY OF SOLAR GEOPHYSICAL ACTIVITY

20 NOVEMBER, 1993

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(Based In-Part On SESC Observational Data)

SOLAR AND GEOPHYSICAL ACTIVITY INDICES FOR 20 NOVEMBER, 1993

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!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 324, 11/20/93  
10.7 FLUX=100.5 90-AVG=094 SSN=058 BKI=3312 1221 BAI=007  
BGND-XRAY=B1.5 FLU1=3.7E+05 FLU10=1.2E+04 PKI=3411 2222 PAI=009  
BOU-DEV=021,026,006,012,009,010,010,007 DEV-AVG=012 NT SWF=00:000  
XRAY-MAX= C5.2 @ 0032UT XRAY-MIN= B1.2 @ 1919UT XRAY-AVG= B4.0  
NEUTN-MAX= +002% @ 0945UT NEUTN-MIN= -002% @ 1145UT NEUTN-AVG= -0.3%  
PCA-MAX= +0.1DB @ 1215UT PCA-MIN= -0.1DB @ 1900UT PCA-AVG= +0.0DB  
BOUTF-MAX=55364NT @ 0231UT BOUTF-MIN=55346NT @ 1952UT BOUTF-AVG=55355NT  
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+066,+000,+000  
GOES6-MAX=P:+128NT@ 1836UT GOES6-MIN=N:-070NT@ 0951UT G6-AVG=+087,+019,-038  
FLUXFCST=STD:105,110,110;SESC:105,110,110 BAI/PAI-FCST=010,010,020/012,015,035  
KFCST=1115 4000 1112 2111 27DAY-AP=009,029 27DAY-KP=4222 1221 2235 6533  
WARNINGS=\*SWF  
ALERTS=\*\*245STRM:0613-0817UTC  
!!END-DATA!!

NOTE: The Effective Sunspot Number for 19 NOV 93 was 25.0.

The Full Kp Indices for 19 NOV 93 are: 3+ 6- 2- 2o 3- 4- 3- 3o

## SYNOPSIS OF ACTIVITY

-----

Solar activity was low. Region 7618 (N07W31) remains the most impressive area on the disk. In white light, the region has decreased in area and spot number, but still retains its beta-delta configuration. New Region 7621 (S09E48) was numbered overnight. An area of interest to watch is on the east limb at N12 where an impressive bright surge was reported by Learmonth last night. All other areas/regions were stable.

Solar activity forecast: solar activity is expected to be low to moderate with Region 7618 the most likely candidate to produce C and M-class activity. A new, active region may rotate into view over the next few days and could also contribute to activity.

STD: X-ray imagery from the Yohkoh satellite showed a fairly strong and bright loop system at about 02:50 UTC from the region just beyond the east limb. A Yohkoh full-disk x-ray image showing the enhanced northeast limb emissions has been appended to this report.

The geomagnetic field has been at mostly unsettled levels. Since 09Z, the middle latitude field has been at quiet levels.

Geophysical activity forecast: the geomagnetic field is expected to be at mostly unsettled levels for the first two days of the period with active to minor storm conditions expected early on day three due to a favorably located coronal hole. The disturbance is expected to last only one day with levels forecasted to decrease to mostly unsettled thereafter.

### Event probabilities 21 nov-23 nov

Class M	50/50/50
Class X	05/05/05
Proton	05/05/05
PCAF	Green

### Geomagnetic activity probabilities 21 nov-23 nov

A. Middle Latitudes	
Active	20/25/35

Minor Storm	10/10/20
Major-Severe Storm	01/05/10

B. High Latitudes	
Active	25/30/40
Minor Storm	10/15/30
Major-Severe Storm	01/10/15

HF propagation conditions were near-normal over the low and middle latitude paths. High and polar latitude paths experienced additional periods of below-normal propagation due primarily to periods of enhanced geomagnetic and auroral activity within the auroral zone. Conditions improved notably by the end of the day. Propagation conditions are expected to continue near-normal over the next 48 hours (through about 22 November inclusive). Activity could become gradually enhanced during the latter half of 22 November. On 23 November, a recurrent coronal hole is expected to increase levels of geophysical activity to near-storm levels which is expected to cause below-normal (poor to occasionally very poor) propagation for transpolar and transauroral paths. Middle-latitude night-sector paths may also be affected on 22 November.

#### COPIES OF JOINT USAF/NOAA SESC SOLAR GEOPHYSICAL REPORTS

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#### REGIONS WITH SUNSPOTS. LOCATIONS VALID AT 20/2400Z NOVEMBER

-----

NMBR	LOCATION	LO	AREA	Z	LL	NN	MAG	TYPE
7618	N08W31	338	0580	DKI	08	026	BETA-DELTA	
7620	N04E43	264	0000	AXX	01	001	ALPHA	
7621	S10E49	258	0000	AXX	00	001	ALPHA	

REGIONS DUE TO RETURN 21 NOVEMBER TO 23 NOVEMBER

NMBR LAT LO  
NONE

#### LISTING OF SOLAR ENERGETIC EVENTS FOR 20 NOVEMBER, 1993

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BEGIN	MAX	END	RGN	LOC	XRAY	OP	245MHZ	10CM	SWEEP	SWF
NO EVENTS OBSERVED										

#### POSSIBLE CORONAL MASS EJECTION EVENTS FOR 20 NOVEMBER, 1993

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BEGIN	MAX	END	LOCATION	TYPE	SIZE	DUR	II	IV
-------	-----	-----	----------	------	------	-----	----	----

20/ 0338 0403 0444 N08W20 LDE C1.3 66

INFERRED CORONAL HOLES. LOCATIONS VALID AT 20/2400Z

-----  
ISOLATED HOLES AND POLAR EXTENSIONS  
EAST SOUTH WEST NORTH CAR TYPE POL AREA OBSN  
48 S42W53 S44W61 S09W90 S09W90 023 ISO NEG 010 10830A  
49 N30E05 N18W04 N25W13 N38W05 316 ISO POS 005 10830A

SUMMARY OF FLARE EVENTS FOR THE PREVIOUS UTC DAY

-----  
Date Begin Max End Xray Op Region Locn 2695 MHz 8800 MHz 15.4 GHz  
-----  
19 Nov: 0337 0342 0344 B3.1 SF 7618 N09W07  
0359 0404 0408 B3.2  
0710 0759 0828 B8.9  
1845 2004 2051 B9.8  
B2007 U2009 A2015 SF 7618 N12W12

REGION FLARE STATISTICS FOR THE PREVIOUS UTC DAY

-----  
C M X S 1 2 3 4 Total (%)  
-----  
Region 7618: 0 0 0 2 0 0 0 0 002 (40.0)  
Uncorrelated: 0 0 0 0 0 0 0 0 003 (60.0)

Total Events: 005 optical and x-ray.

EVENTS WITH SWEEPS AND/OR OPTICAL PHENOMENA FOR THE LAST UTC DAY

-----  
Date Begin Max End Xray Op Region Locn Sweeps/Optical Observations  
-----  
NO EVENTS OBSERVED.

NOTES:

All times are in Universal Time (UT). Characters preceding begin, max, and end times are defined as: B = Before, U = Uncertain, A = After. All times associated with x-ray flares (ex. flares which produce associated x-ray bursts) refer to the begin, max, and end times of the x-rays. Flares which are not associated with x-ray signatures use the optical observations to determine the begin, max, and end times.

Acronyms used to identify sweeps and optical phenomena include:

II	= Type II Sweep Frequency Event
III	= Type III Sweep
IV	= Type IV Sweep
V	= Type V Sweep
Continuum	= Continuum Radio Event
Loop	= Loop Prominence System,
Spray	= Limb Spray,
Surge	= Bright Limb Surge,
EPL	= Eruptive Prominence on the Limb.

SPECIAL INSERT: CURRENT X-RAY EMISSIONS FROM THE JAPANESE YOHKOH SPACECRAFT

20 November 1993, 02:50 UTC

North

[illegible]

South

Units used are arbitrary, for illustrative purposes. Get "showasc.zip" from "pub/solar/Software" at the anonymous FTP site: xi.uleth.ca (IP # 142.66.3.29) to view these images on VGA screens.

Date: Fri, 26 Nov 1993 20:54:14 MST  
From: swrinde!cs.utexas.edu!uwm.edu!spool.mu.edu!agate!library.ucla.edu!  
news.mic.ucla.edu!unixg.ubc.ca!kakwa.ucs.ualberta.ca!alberta!ugc!nebulus!ve6mgs!  
usenet@network.ucsd.edu  
Subject: Daily Summary of Solar Geophysical Activity for 26 November  
To: info-hams@ucsd.edu

```

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 330, 11/26/93
10.7 FLUX=093.2  90-AVG=094          SSN=052      BKI=2222 2242  BAI=009
BGND-XRAY=B1.5    FLU1=9.2E+05  FLU10=1.3E+04  PKI=2212 2342  PAI=009
    BOU-DEV=018,012,013,010,015,018,043,017  DEV-AVG=018 NT      SWF=00:000
    XRAY-MAX= C2.1    @ 1606UT    XRAY-MIN= B1.3    @ 2328UT    XRAY-AVG= B2.3
NEUTN-MAX= +002%    @ 2155UT    NEUTN-MIN= -002%    @ 1810UT    NEUTN-AVG= -0.1%

```

PCA-MAX= +0.2DB @ 1545UT      PCA-MIN= -0.3DB @ 2135UT      PCA-AVG= +0.1DB  
BOUTF-MAX=55364NT @ 1344UT      BOUTF-MIN=55333NT @ 1826UT      BOUTF-AVG=55357NT  
GOES7-MAX=P:+000NT@ 0000UT      GOES7-MIN=N:+000NT@ 0000UT      G7-AVG=+064,+000,+000  
GOES6-MAX=P:+130NT@ 1742UT      GOES6-MIN=N:-055NT@ 0825UT      G6-AVG=+085,+016,-028  
FLUXFCST=STD:095,090,090;SESC:095,090,090      BAI/PAI-FCST=005,005,005/010,010,010  
KFCST=3122 2112 3212 2122      27DAY-AP=005,007      27DAY-KP=2121 2122 1132 2223  
WARNINGS=\*SWF  
ALERTS=  
!!END-DATA!!

NOTE: The Effective Sunspot Number for 25 NOV 93 was 42.0.  
The Full Kp Indices for 25 NOV 93 are: 2- 1+ 1o 0+      2- 2o 2- 3-

#### SYNOPSIS OF ACTIVITY

-----

Solar activity was low with several C-class flares observed. New Region 7623 (S11E67) rotated onto the disk and produced a C2/SF flare at 26/1605Z. Region 7620 (N04W40) produced a C1 flare at 26/1712Z. All regions appear to be stable.

Solar activity forecast: solar activity is expected to be at low levels during the period.

STD: The latest Yohkoh image has been appended to this report.

The geomagnetic field has been at quiet levels for the past 24 hours. High latitudes reported isolated unsettled levels during the period.

Geophysical activity forecast: the geomagnetic field is expected to be at quiet to unsettled levels.

Event probabilities 27 nov-29 nov

Class M	10/10/10
Class X	01/01/01
Proton	01/01/01
PCAF	Green

Geomagnetic activity probabilities 27 nov-29 nov

#### A. Middle Latitudes

Active	05/05/05
Minor Storm	05/05/05
Major-Severe Storm	01/01/01



B. High Latitudes  
Active 05/05/10  
Minor Storm 01/05/05  
Major-Severe Storm 01/01/01

HF propagation conditions were normal over all regions.  
No changes are expected over the next three days, through 29  
November inclusive. Normal propagation should persist over all  
regions.

# COPIES OF JOINT USAF/NOAA SESC SOLAR GEOPHYSICAL REPORTS

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## REGIONS WITH SUNSPOTS. LOCATIONS VALID AT 26/2400Z NOVEMBER

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NMBR	LOCATION	LO	AREA	Z	LL	NN	MAG	TYPE
7620	N04W40	268	0280	ESI	12	017	BETA	
7622	N13E06	222	0040	CSO	03	004	BETA	
7623	S11E67	161	0030	HAX	01	001	ALPHA	
7621	S09W30	258					PLAGE	

REGIONS DUE TO RETURN 27 NOVEMBER TO 29 NOVEMBER

NMBR LAT LO

NONE

## LISTING OF SOLAR ENERGETIC EVENTS FOR 26 NOVEMBER, 1993

-----

BEGIN	MAX	END	RGN	LOC	XRAY	OP	245MHZ	10CM	SWEEP
NONE									

## POSSIBLE CORONAL MASS EJECTION EVENTS FOR 26 NOVEMBER, 1993

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BEGIN	MAX	END	LOCATION	TYPE	SIZE	DUR	II	IV
NO EVENTS OBSERVED								

## INFERRED CORONAL HOLES. LOCATIONS VALID AT 26/2400Z

-----

### ISOLATED HOLES AND POLAR EXTENSIONS

	EAST	SOUTH	WEST	NORTH	CAR	TYPE	POL	AREA	OBSN
51	S01E47	S13E32	N15E15	N35E42	202	ISO	POS	023	10830A

## SUMMARY OF FLARE EVENTS FOR THE PREVIOUS UTC DAY

-----

Date	Begin	Max	End	Xray	Op	Region	Locn	2695 MHz	8800 MHz	15.4 GHz
25 Nov:	0009	0020	0037	C1.0	SF	7620	N04W14			
	0105	0105	0112		SF	7620	N05W14			
	0116	0117	0124		SF	7620	N03W15			
	0138	0145	0204	B9.7	SF	7620	N05W14			
	0343	0357	0406	C2.6						
	0458	0518	0527		SF	7620	N03W15			
	0534	0540	0555	C1.2	1N	7620	N03W17			
	0614	0621	0625	C5.7						
	0805	0809	0815	C2.1	SF	7620	N03W17			
	0902	0912	0918	C1.9	SF	7620	N04W19			
	1214	1223	1231	B7.5						
	1744	1754	1803	B3.9						
	2020	2027	2037	C1.8	SF	7620	N04W24			
	2251	2254	2256	B2.7						

#### REGION FLARE STATISTICS FOR THE PREVIOUS UTC DAY

	C	M	X	S	1	2	3	4	Total	(%)
Region 7620:	5	0	0	8	1	0	0	0	009	(64.3)
Uncorrellated:	2	0	0	0	0	0	0	0	005	(35.7)

Total Events: 014 optical and x-ray.

#### EVENTS WITH SWEEPS AND/OR OPTICAL PHENOMENA FOR THE LAST UTC DAY

Date	Begin	Max	End	Xray	Op	Region	Locn	Sweeps/Optical Observations
25 Nov:	0614	0621	0625	C5.7				III

#### NOTES:

All times are in Universal Time (UT). Characters preceding begin, max, and end times are defined as: B = Before, U = Uncertain, A = After. All times associated with x-ray flares (ex. flares which produce associated x-ray bursts) refer to the begin, max, and end times of the x-rays. Flares which are not associated with x-ray signatures use the optical observations to determine the begin, max, and end times.

Acronyms used to identify sweeps and optical phenomena include:

II = Type II Sweep Frequency Event

III	= Type III Sweep
IV	= Type IV Sweep
V	= Type V Sweep
Continuum	= Continuum Radio Event
Loop	= Loop Prominence System,
Spray	= Limb Spray,
Surge	= Bright Limb Surge,
EPL	= Eruptive Prominence on the Limb.

SPECIAL INSERT: CURRENT X-RAY EMISSIONS FROM THE JAPANESE YOHKOH SPACECRAFT

26 November 1993, 02:00 UTC

North

[illegible]

## South

KEY: East and west limbs are to the left and right respectively. Emission strength, from minimum to maximum are coded in the following way:

[space] . , : ; - + | ! 1 2 3 4 \* # @

Units used are arbitrary, for illustrative purposes. Get "showasc.zip" from "pub/solar/Software" at the anonymous FTP site: xi.uleth.ca (IP # 142.66.3.29) to view these images on VGA screens.

\*\* End of Daily Report \*\*

-----  
Date: 28 Nov 93 06:24:50 GMT  
From: ogicse!uwm.edu!cs.utexas.edu!howland.reston.ans.net!noc.near.net!news.delphi.com!usenet@network.ucsd.edu  
Subject: Email callbook server  
To: info-hams@ucsd.edu

In the last message I said that he (ko4rk, aka 44.62.0.122) might not pick up an Internet message from an .ampr. source. That should have read a NON-.ampr. source, that is, not from a packet BBS.

Also, there are other REQQTH servers all over the place. This is the only one I am sure of.

Again, hope this helps.  
Jason!

-----  
Date: 28 Nov 93 06:19:52 GMT  
From: ogicse!uwm.edu!cs.utexas.edu!howland.reston.ans.net!noc.near.net!news.delphi.com!usenet@network.ucsd.edu  
Subject: Email callbook server  
To: info-hams@ucsd.edu

The only E-mail servers I know of are available on packet BBSs. You may want to try the following (It might work):  
send a message to REQQTH@44.62.0.122 and in the SUBJECT of the message, put the callsign(s) of the station(s) you are looking for, separated only by spaces. Put nothing in the actual text section.

I'm not sure if he will pick up an Internet message from a .ampr. source,

but it might be worth a shot. You might also try a telnet to  
plan9.njit.edu 2000 or mudgate.imsa.edu 2000.

I hope I've answered your question with at least one of the options.

--\*>Jason!<\*-  
JTRIOL0@delphi.com  
kd4acg@k9iu.ampr.org (k9iu.#sin.in.usa.na)  
kd4acg@wa4ong.ampr.org (wa4ong.va.usa.na)

-----  
Date: 25 Nov 1993 16:22:58 GMT  
From: munnari.oz.au!sgiblab!swrinde!gatech!usenet.ufl.edu!mailer.acns.fsu.edu!  
freenet2.scri.fsu.edu!friederw@network.ucsd.edu  
Subject: How useful are DSP units in noisy locations?  
To: info-hams@ucsd.edu

NIR-10 does a really good job for me here in Tallahassee. The recent  
firmware upgrade did wonders for it--QRN almost disappears! 73  
--

\*\*\*\*\*  
\*\*\*\*\*  
William A. "Bill" Frieder friederw@freenet.tlh.fl.us  
N4QNF Packet Mail = N4QNF @ W1FJI  
(904) 488-2381 days (904) 893-3738 till 9:30 P.M. EDT

-----  
Date: Fri, 26 Nov 1993 21:49:00 GMT  
From: pacbell.com!UB.com!wetware!rhohan!express@ames.arpa  
Subject: Mag Mount Paint Damage  
To: info-hams@ucsd.edu

SMK>From: sknapp@iastate.edu (Steven M. Knapp) SMK>Organization: Iowa State  
University, Ames, IA SMK>In article <CGx7KB.FHq@srgenprp.sr.hp.com>  
alanb@sr.hp.com (Alan SMK>Bloom) writes: SMK>>David Van Nuys (vannuysd@sonoma.edu)  
wrote: SMK>>: I notice that my two-meter mag mount is leaving rings on the paint  
SMK>of my SMK>>: trunk. Has anyone got any tips for preserving the paint and  
still SMK>using SMK>>: a mag mount? Try putting the base of the antenna into a  
plastic sandwich bag and  
e car. Steve Fleckenstein - Red Onion Express BBS - 914-342-4585 \* OLX 2.1 TD \*  
Paper clips are the larval stage of coat hangers. --- RBBSMail v18.2 \* Origin:  
Red Onion, Express Wawayanda, New York 914 342 4585 (100:911/7.0)

-----  
Date: 22 Nov 1993 03:05:00 GMT

From: dog.ee.lbl.gov!agate!howland.reston.ans.net!cs.utexas.edu!  
gerald@cc.utexas.edu!slip-3-1.ots.utexas.edu!user@network.ucsd.edu  
Subject: Modem Software to Alert Many Pagers?  
To: info-hams@ucsd.edu

Our local Amateur Radio Emergency Service (ARES) group needs some software that could notify all our pager-carrying members when an emergency happens.

Many of our members carry pagers for their jobs, and most of these are digital pagers. We need an application that would go down a list of pager phone numbers, dialing each, waiting until the phone is answered, then sending the TouchTones (r) for "14694". This number would be recognized by our members as meaning 146.94 MHz, the local ARES repeater frequency.

Has anyone seen an app (for PC or Mac) that can do this? Thank you.

```
= = = = =  
_      Miles Abernathy, N5KOB      =  
| |__ miles@mbs.telesys.utexas.edu =  
_|    | POB 7580, Austin TX 78713  =  
\  * / University of Texas @ Austin =  
  \ /   tel. (512) 471-6521  U.S.A. =  
= = = = =
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End of Info-Hams Digest V93 #1395

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